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Date | April 11, 2001

UTILITY PATENT APPLICATION **TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR § 1.53(b))

awery & conti

SIGNATURE

| Title | Performing Gen | Coding Method and System for eral Searching of Vector Quantization d for Coding a Speech Signal | | | | |
|---------------------|---------------------|---|--|--|--|--|
| First Inventor | | Juin-Hwey Chen | | | | |
| Attorney Docket No. | | 1875.0250003/RES/AJF | | | | |
| espond to a | a confection of inf | n unless it displays a valid OMB control number. | | | | |

| | ICATION ELEMENTS 00 concerning utility patent application | on contents. | AD | DRI | Assistant Commissioner for Patents Box Patent Application Washington, DC 20231 | | |
|--|--|---|--------|------------------|---|--|--|
| (Submit an original, | al Form (e.g., PTO/SB/17) I, and a duplicate for fee processing) ans small entity status. | | | (A) √ucle | D-ROM or CD-R in duplicate, large table or Computer Program oppendix) tide and/or Amino Acid Sequence Submission applicable, all necessary) | | |
| 3. Specification (preferred arranger - Descriptive title of - Cross Reference to - Statement Regardi - Reference to seque or a computer prof - Background of the - Brief Summary of | See 37 CFR 1.27. Specification [Total Pages 90] (preferred arrangement set forth below) - Descriptive title of the Invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention | a. Computer Readable Form (CRF) b. Specification Sequence Listing on: CD-ROM or CD-R (2 copies); or paper c. Statements verifying identity of above copies ACCOMPANYING APPLICATION PARTS | | | | | |
| - Detailed Descripti - Claim(s) - Abstract of the Dis | | | 9. | | Assignment Papers (cover sheet & document(s)) | | |
| | 5 U.S.C. 113) [Total Sheets | <u>34</u> 1 | 10. | \boxtimes | 37 CFR 3.73(b) Statement (when there is an assignee) ✓ Power of Attorney From Assignee | | |
| | | 7 1 | 11. | | English Translation Document (if applicable) | | |
| 5. Oath or Declaration a. Newly exec | [Total Pages cuted (original or copy) | <u>~</u> ' | 12. | | Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations | | |
| h □ Conv from | a prior application (37 CFR | 1.63(d)) | 13. | | Preliminary Amendment | | |
| (for continue | tion/divisional with Box 18 completed) ELETION OF INVENTOR(S) igned statement attached deleting inventor(s) amed in the prior application, see 37 CFR §§ | npleted) | 14. | | | | |
| · | | ng inventor(s) | 15. | | (Should be specifically itemized) Certified Copy of Priority Document(s) | | |
| 1 | 1.63(d)(2) and 1.33(b). | ee 37 CFR 99 | 16. | | (if foreign priority is claimed) Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach | | |
| 6. Application Data | a Sheet. See 37 CFR 1.76. | | | | form PTO/SB/35 or its equivalent. | | |
| | | | 17. | ⊠ ⊠ | Other: Authorization under 37 C.F.R. § 1.136(a)(3) Other: The name of the assignee is: Broadcom Corporation | | |
| 18. If a CONTINUING or in an Application Data Si | | opriate box, and sup | ply th | | isite information below and in a preliminary amendment, | | |
| ☐ Continuation | ☐ Divisional Conf | tinuation-in-Part (CII | D) | ofn | rior application No: 09/722,077 | | |
| Prior application info | | ` | , | OI p | Group/Art Unit: 2644 | | |
| | | | | | : | | |
| considered a part of the disc | DIVISIONAL APPS only: The closure of the accompanying cor has been inadvertently omitted | ntinuation or division | ial ap | plicati | lication, from which an oath or declaration is supplied under Box 5b, is on and is hereby incorporated by reference. The incorporation can only arts. | | |
| | | 19. CORRESPON | NDE | NCE. | ADDRESS / | | |
| ☐ Customer Number or B Customer No. 2 | 26111 | | | | or Correspondence address below | | |
| NAME | (Insert C | ustome (60 or 11 a | | r, code | label here) | | |
| | Attorneys at Law | FATEINT:TYOUJEMARK OF | FFICE | | | | |
| ADDRESS | | | | | | | |
| CITTLE | | STATE | I | | ZIP CODE | | |
| CITY COUNTRY | | TELEPHONE | - | | FAX | | |

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**REGISTERED PATENT AGENT

***SENIOR COUNSEL

April 11, 2001

WRITER'S DIRECT NUMBER: (202) 312-7261 INTERNET ADDRESS: AFASULO@SKGF.COM

Commissioner for Patents Washington, D.C. 20231

Box Patent Application

Re:

U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)

(Continuation-in-Part of Appl. No. 09/722,077; Filed: November 27, 2000)

Appl. No. To be assigned; Filed: HEREWITH

For:

Noise Feedback Coding Method and System for Performing General

Searching of Vector Quantization Codevectors Used for Coding a

Speech Signal

Inventor:

Juin-Hwey Chen

Our Ref:

1875.0250003/RES/AJF

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office:

- 1. PTO Fee Transmittal (Form PTO/SB/17) (in duplicate);
- 2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
- 3. U.S. Utility Patent Application entitled:

Noise Feedback Coding Method and System for Performing General Searching of Vector Quantization Codevectors Used for Coding a Speech Signal Commissioner for Patents April 11, 2001 Page 2

and naming as inventor:

Juin-Hwey Chen

the application consisting of:

- a. A specification containing:
 - i. 82 pages of description prior to the claims;
 - ii. 7 pages of claims (24 claims);
 - iii. a one (1) page abstract;
- b. <u>34</u> sheets of Formal Drawings: (Figures: 1, 1A, 2, 2A, 3-5, 5A, 6, 6A, 6B, 7-12, 13A, 13B, 13C, 13D, 13E, 14A, 14B, 14C, 14D, 14E, 15A, 15B, 16A, 16B, 17-19); and
- c. An original executed Declaration;
- 4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3) (in duplicate);
- 5. Recordation Form Cover Sheet (PTO-1595);
- An original executed Assignment to <u>Broadcom Corporation</u>, recordation of which is hereby respectfully requested;
- 7. An original executed Power of Attorney from Assignee;
- 8. A Certificate under 37 C.F.R. § 3.73(b) from Assignee with a copy of the Assignment attached;
- 9. Application Data Sheet (37 C.F.R. § 1.76);
- 10. Our Check No. <u>30938</u> for \$822.00 to cover:
 - \$ 710.00 Filing fee for patent application;
 - \$ 72.00 Excess claims fee;
 - \$ 40.00 Assignment recordation fee; and
- 11. Two (2) return postcards.

Commissioner for Patents April 11, 2001 Page 3

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Albert J. Fasulo, II

Attorney for Applicant

Registration No. 43,607

Enclosures

RES/AJF;vrb
P:\USERS\AFASULO\1875\0250003\NewAppl-ptoltr
SKGF Rev. 8/1/00 mac

Certificate Under 37 C.F.R. § 3.73(b)

| Applica | ant/Patent Owner: Broadcom Corporation |
|---------------|--|
| Applica | ation No./Patent No.: To be assigned Filed/Issue Date: HEREWITH |
| | |
| | l: Noise Feedback Coding Method and System for Performing General Searching of Vector Quantization ectors Used for Coding a Speech Signal |
| Codeve | ctors Used for Coding a Speech Signal |
| | Broadcom Corporation , a Corporation (Name of Assignee) , (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.) |
| states th | nat it is: |
| 1. [X] | the assignee of the entire right, title, and interest, or |
| 2. [] | an assignee of an undivided part interest |
| in the p | atent application/patent identified above by virtue of either: |
| A. [X] | An Assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. |
| OR | |
| B. [] | A chain of title from the inventor(s) of the patent application/patent identified above to the current assignee as shown below: |
| | 1. From: To: To: The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. 2. From: To: |
| | The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. |
| | 3. From: To: To: The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. |
| | [] Additional documents in the chain of title are listed on a supplemental sheet. |
| [] Cop | ies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8] |
| The und | dersigned (whose title is supplied below) is empowered to act on behalf of the assignee. |
| Date: | APRIL 5, 2001 |
| Name: | WILLIAM RUEHLE |
| Title: | WIWIAM RUENTE VICE PRESIDENT & CFO MELLING ME |
| Signatu | ire: ///tunuu |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Juin-Hwey Chen

Appl. No. To be assigned

Filed: HEREWITH

Noise Feedback Coding Method

and System for Performing **General Searching of Vector Quantization Codevectors Used** for Coding a Speech Signal

Confirmation No. N/A

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 1875.0250003/RES/AJF

Authorization To Treat A Reply As Incorporating An Extension Of Time Under 37 C.F.R. § 1.136(a)(3)

Commissioner for Patents Washington, D.C. 20231

Sir:

For:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Albert J. Fasulo, II

Attorney for Applicant Registration No. 43,607

Date: April 11, 2001

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600 RES/AJF:vrb

P:\USERS\AFASULO\1875\0250003\EOT-Auth

Approved for use through 10/31/2002. OMB 0651-0032 of Trademark Office: U.S. DEPARTMENT OF COMMERCE finformation unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$) 822.00

| Complete if Known | | | | | |
|----------------------|----------------------|--|--|--|--|
| Application Number | To be assigned | | | | |
| Filing Date | HEREWITH | | | | |
| First Named Inventor | Juin-Hwey CHEN | | | | |
| Examiner Name | To be assigned | | | | |
| Group Art Unit | To be assigned | | | | |
| Attorney Docket No. | 1875.0250003/RES/AJF | | | | |

| METHOD OF PAYMENT (check one) | | FEE CALCULATION (continued) | | | | | | | |
|--|-------------|-----------------------------|-------------|-------------|--|----------------|--|--|--|
| The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to: | | TIONAL Entity | | Entity | | | | | |
| Deposit Account Number 19-0036 | Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee paid | | | |
| Deposit Account Name Sterne, Kessler, Goldstein & Fox P.L.L.C. | 105 | 130 | 205 | 65 | Surcharge - late filing fee or oath | | | | |
| │ □□ | 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | | | | |
| Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17 | 139 | 130 | 139 | 130 | Non-English specification | | | | |
| Applicant claims small entity status See 37 CFR 1.27 | | 2,520 | 147 | 2,520 | For filing a request for ex parte reexamina | ation | | | |
| 300 57 CFR 1.27 | 112 | 920* | 112 | 920* | Requesting publication of SIR prior to Examiner action | r | | | |
| | 113 | 1,840* | 113 | 1,840* | Requesting publication of SIR after Examiner a | ction | | | |
| ☐ ☐ Credit card ☐ Money Order ☐ Other* **Tharge any deficiencies or credit any overpayments in the fees or fee Galculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036. | | 110 | 215 | 55 | Extension for reply within first month | | | | |
| FEE CALCULATION | 116 | 390 | 216 | 195 | Extension for reply within second month . | | | | |
| 1. BASIC FILING FEE | 117 | 890 | 217 | 445 | Extension for reply within third month | | | | |
| Large Entity Small Entity | 118 | 1,390 | 218 | 695 | Extension for reply within fourth month | | | | |
| Fee Fee Fee Fee Description Fee Paid Code (\$) Code (\$) | 128 | 1,890 | 228 | 945 | Extension for reply within fifth month | | | | |
| 101 710 201 355 Utility filing fee <u>710.00</u> | 119 | 310 | 219 | 155 | Notice of Appeal | | | | |
| 106 320 206 160 Design filing fee | 120 | 310 | 220 | 155 | Filing a brief in support of an appeal | | | | |
| 107 490 207 245 Plant filing fee | 121 | 270 | 221 | 135 | Request for oral hearing | | | | |
| 108 710 208 355 Reissue filing fee | 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | ng | | | |
| 114 150 214 75 Provisional filing fee | 140 | 110 | 240 | 55 | | | | | |
| CURTOTAL (4) (C) 740 00 | 141 142 | 1,240 | 241 | 620 | Petition to revive - unintentional | | | | |
| SUBTOTAL (1) (\$) 710.00 | 142 | 1,240 440 | 242 243 | 220 | Utility issue fee (or reissue) Design issue fee | | | | |
| | 143 | 600 | 243 | 300 | Plant issue fee | | | | |
| | 122 | 130 | 122 | 130 | Petitions to the Commissioner | | | | |
| 2. EXTRA CLAIM FEES Fee from | 123 | 130 | 123 | 130 | Petitions related to provisional application | ns | | | |
| Extra below Fee Paid | 126 | 180 | 126 | 180 | Submission of Information Disclosure Stn | nt : | | | |
| Total Claims <u>24</u> - 20** = 4 | | 40 | 481 | 40 | Recording each patent assignment per property (times number of properties) | 40.00 | | | |
| Multiple Dependent = <u>0.00</u> | 146 | 710 | 246 | 355 | Filing a submission after final rejection (37 CFR 1.129(a)) | | | | |
| Large Entity Small Entity Fee Fee Fee Fee Fee Description Code (\$) Code (\$) | 149 | 710 | 249 | 355 | For each additional invention to be exami (37 CFR 1.129(b)) | ined | | | |
| 103 18 203 9 Claims in excess of 20 | 179 | 710 | 279 | 355 | Request for Continued Examination (RCE | Ε) | | | |
| 102 80 202 40 Independent claims in excess of 3 | 169 | 900 | 169 | 900 | Request for expedited examination of a design application | | | | |
| 104 270 204 135 Multiple dependent claim 108 80 209 40 **Reissue independent claims over original | Other fee | (specify) : | | | арриодион 1 | | | | |
| patent patent 110 18 210 9 Reissue claims in excess of 20 and over original patent | (specify) : | | | | <u> </u> | | | | |
| SUBTOTAL (2) (\$) 72.00 | | | Filing Fee | Paid | | L | | | |
| ** or number previously paid, if greater, For Reissues, see above | | | | | SUBTOTAL (3) (\$) 40.00 | | | | |
| SUBMITTED BY | | | | | Complete (if app | licable) | | | |
| Name (Print/Type) Albert J. Fasulo, II | | R | egistration | No | 43,607 Telephone | 202-371-2600 | | | |
| Signature Owert A Food- | 工 | | | | Date | April 11, 2001 | | | |